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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,491	06/26/2001	Pai-Chin Wu	WUPA3001/EM/6926	9102
23364	7590	08/16/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			PHAN, TRI H	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,491

Applicant(s)

WU ET AL.

Examiner

Tri H. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on April 21st, 2005.
New claim 7 is added. Claims 1-7 are now pending in the application.

Drawings

2. The drawings are objected to because all blocks in Figures 1-2 should be labeled with descriptive legends based on 37 C.F.R. § 1.84(o) for supporting the objection in the Rules and M.P.E.P. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 6 and 7 are objected to because of the following informalities:

In claim 6, the word “a” in front of the term “public switched” in lines 5-6 should be correct to --- the ---; the word “an” in front of the term “internet phone” in line 6 should be correct to --- the ---; and the word “an” in front of the term “internet phone” in line 11 should be correct to --- the --- for clarities.

In regard to claim 7, space should be insert between words for clarity.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ng et al.** (U.S.6,424,647; hereinafter refer as 'Ng').

- In regard to claim 1, **Ng** discloses in Figs. 1-9 and in the respective portions of the specification about *the voice over internet protocol device* ('internet phone set-top box') *capable of auto-selectively dialing up a public switched telephone network or an internet phone* (For example see Figs. 1-2; Abstract), *which comprises the line transfer switch* ('internet phone' or 'relay' in Figs. 1-2 and 8), *which connects with the terminal apparatus to receive the voice signal produced by the terminal apparatus* ('phone'); *a control circuit* ('internet processor' in Fig. 2) *is used to control each component in the entire device, and proceeds with packet processing for the signal received to produce the corresponding internet protocol packet* (For example see col. 4, lines 54-64); *the control circuit connecting with the line transfer switch to produce a trigger signal* ('ringing signal'; For example see col. 17, lines 23-30) *that causes the line transfer switch to transfer the voice signal produced by the terminal apparatus from the subscriber line interface circuit* ('SLIC' in Figs. 2 and 8) *to the public switched telephone network when a power supply*

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failure is detected ('no power is applied' or 'power off'; For example see Fig. 9; col. 17, lines 5-13), *wherein the subscriber line interface circuit is connected to the line transfer switch and to the control circuit and arranged to transform the voice signal transmitted from the terminal apparatus to digital signal, and then transmit the digital signal to the control circuit to proceed with packet processing* (For example see col. 4, lines 54-64); *the phone detection circuit* ('off-hook detector' in Fig. 8), *which is connected with the line transfer switch and the control circuit to detect the employment status* ('on hook' in Fig. 9; it is obvious that the 'off hook' position of the phone is the "unused status" of the phone) *of the terminal apparatus* (For example see col. 18, lines 58-62); *the ringing detection circuit* ('ring detector' in Fig. 8), *which is connected with the line transfer switch and the loop* ('position 1' in Fig. 8) *to detect the in-coming call ringing signal* ('ringing signal') *transmitted from the public switched telephone network through the loop* (For example see col. 17, lines 23-26), *wherein when the in-coming call ringing signal is detected, according to the employment status of the terminal apparatus detected by the phone detection circuit, the control circuit supplies an in-coming call transfer signal to cause the line transfer switch to connect the terminal apparatus with the loop to receive the ringing signal when the employment status of the terminal apparatus is unused* ('on-hook state'), *and when the terminal apparatus is picked up to enable communication with the remote terminal apparatus to proceed through the public switched telephone network* (For example see col. 17, lines 21-64).

Though, Ng does disclose about the power supply unit 213 in Fig. 2; but does not explicitly disclose about the "rectifier", which connects with the control circuit to supply the control circuit with power required for its normal operation; however, the "rectifier" is well known in the art for providing and rectifying the power supply level in the electronic devices.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to use the “*rectifier*” in the Ng’s power supply unit, with the motivation being to providing required power for the system’s operation.

- Regarding claim 2, in addition to features in base claim 1 (see rationales pertaining the rejection of base claim 1 discussed above), Ng further discloses *wherein there are a plurality of signal contacts equipped on the line transfer switch* (‘connection’s position from the relay to the telephone’ in Fig. 8), *wherein the first signal contact connects with the terminal apparatus* (‘relay’ in Fig. 8), *and the second signal contact* (‘position 2’ in Fig. 8) *connects with the subscriber line interface circuit* (see Fig. 8), *such that while the control circuit is in the normal power supply status, the trigger signal is produced to make the first and second signal contacts maintain the electric connection status* (For example see col. 17, lines 14-20).

- In regard to claim 3, in addition to features in base claim 1 (see rationales pertaining the rejection of base claim 1 discussed above), Ng further discloses *wherein there is the third signal contact* (‘position 1’ in Fig. 8) *equipped on the line transfer switch, third signal contact connecting with the public switched telephone network through the loop, such that while the power supply for the control circuit is broken* (‘no power is applied’ or ‘power off’ in Fig. 9), *the trigger signal cause the first and second signal contacts to be in an open status, and causes the third signal contact to be transferred to the electric connection status with the first signal contact* (For example see col. 7, lines 5-13; col. 19, lines 21-27).

- Regarding claim 4, Ng discloses in Figs. 1-9 and in the respective portions of the specification about the *processing method for the voice over internet protocol device* ('internet phone set-top box') *capable of auto-selectively dialing up the public switched telephone network or the internet phone* (For example see Figs. 1-2; Abstract), *which comprises the steps of causing the line transfer switch* ('internet phone' or 'relay' in Figs. 1-2 and 8) *to connect the subscriber line interface circuit* ('SLIC' in Figs. 2 and 8) *with the terminal apparatus* (For example see Figs. 1-2), *the subscriber line interface circuit being arranged to transform the voice signal transmitted from the terminal apparatus into the digital signal and to transform the digital signal received from the control circuit into the in-coming voice signal* (For example see col. 4, lines 54-64); *placing the voice over internet protocol device in the preset operation mode* (For example see col. 4, lines 43-53; wherein the default position, as disclosed in col. 17, lines 5-13, is the "preset operation mode"); *detecting the in-coming call ringing signal* ('ringing signal') *transmitted from the public switched telephone network* (For example see col. 17, lines 23-26), *upon detection of the in-coming call ringing signal transmitted from the public switched telephone network, checking the employment status* ('on/off hook') *of the terminal apparatus connected with the voice over internet protocol device* (For example see Fig. 9; col. 18, line 58 through col. 19, line); *if the terminal apparatus is unused* ('on hook' in Fig. 9; it is obvious that the 'off hook' position of the phone is the "unused status" of the phone), *causing the line transfer switch to disconnect the unused terminal apparatus from the subscriber line interface and connect the unused terminal apparatus to the loop which is connected with the public switched telephone network, thereby disconnecting the terminal apparatus from the internet and*

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transferring the in-coming ring signal from the public switched telephone network to the unused terminal apparatus (For example see col. 17, lines 23-64).

- In regard to claim 5, in addition to features in base claim 4 (see rationales pertaining the rejection of base claim 4 discussed above), Ng further discloses *wherein when the ringing signal disappears and the terminal apparatus is in unused status again ('on hook'), the voice over internet protocol device ('internet processor') causes the terminal apparatus to be transferred back to the connection with the subscriber line interface circuit to re-connect the terminal apparatus with the internet through the subscriber line interface circuit* (For example see col. 17, lines 35-38).

- Regarding claim 6, in addition to features in base claim 4 (see rationales pertaining the rejection of base claim 4 discussed above), Ng further discloses *wherein the voice over internet protocol device detects the phone number dialed in the terminal apparatus to judge that the phone corresponding to the phone number dialed in the terminal apparatus belongs to the public switched telephone network or the internet phone* (For example see col. 17, lines 26-30, 41-45), *such that the voice over internet protocol device selectively transfers the terminal apparatus between the status which connects the terminal apparatus with the loop* (For example see col. 17, lines 26-30) *and the status which connects the terminal apparatus with the subscriber line interface circuit* (For example see col. 17, lines 41-45) *depending on whether the phone number dialed in the terminal apparatus is the phone number of the phone on the public switched telephone network or the internet phone* (wherein the "dialed in phone number" is detected as

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unique ringing sequence or predefined threshold value by the Ring detector to determine as the phone on the public switched telephone network or the internet phone).

- In regard to claim 7, in addition to features in base claim 4 (see rationales pertaining the rejection of base claim 4 discussed above), Ng further discloses *when the power supply failure is detected ('power off'), causing the line transfer switch to transfer the voice signal produced by the terminal apparatus from the subscriber line interface circuit to the public switched telephone network, thereby enabling communications with the remote phone that were originally carried out over the internet to continue over the public switched telephone network despite the interruption in a supply of power to the voice over internet protocol device* (For example see Fig. 9; col. 18, line 58 through col. 19, line 15).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shaharabani et al. (U.S.2001/0012285) and **Ng et al.** (U.S.6,424,648) are all cited to show devices and methods for improving the phone call over Internet connection of the telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan
August 13, 2005



BRIAN NGUYEN
PRIMARY EXAMINER